

Supplementary Table 1. Risk of bias among the RCTs and controlled before-after studies using the EPOC framework

Name, year	allocation concealment	Follow up of professionals	Follow up of patients	Blinded assessment of primary data	Base line measurement	Reliable primary outcome	Protection against contamination	Appropriate analysis	No Recruitment bias	No Loss of cluster	report of characteristics (2 nd control site)
Cluster RCT											
Frijling et al. (2003)	+	+	+	-	+	-	+	+	+	+	N/A
Kasje et al (2006)	+	+	+	+	+	+	+	+	+	+	N/A
Klimm et al.(2008)	+	+	+	+	+	+	+	+	+	+	N/A
McCarren et al.(2013)	+	+	+	+	+	+	+	+	+	+	N/A
Thilly et al. (2003)	+	+	+	+	+	+	+	+	+	+	N/A
RCT											
Ansari et al. (2003)	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A
Kasper et al.(2002)	+	+	+	+	+	+	+	N/A	N/A	N/A	N/A
Mejhert et al. (2004)	+	?	+	+	+	+	+	N/A	N/A	N/A	N/A
Panella et al. (2005)	?	+	+	+	+	+	+	N/A	N/A	N/A	N/A
Güder et al. (2015)	+	+	-	+	+	+	+	N/A	N/A	N/A	N/A
Controlled Before-After											
Asch et al. (2005)	N/A	?	?	+	+	+	?	N/A	N/A	N/A	+
Lindenauer et al. (2007)	N/A	?	?	+	+	+	?	N/A	N/A	N/A	?
Sutton et al. (2012)	N/A	?	?	?	+	+	N/A	N/A	N/A	N/A	+

+, criteria met; -, criteria not met; ?, unclear; N/A, not applicable

Supplementary Table 2. Risk of bias among the interrupted time series using the EPOC framework

Name, year								
Persell et al. (2011)	+							
Baker et al. (2011)	+							

+, criteria met; -, criteria not met; ?, unclear; N/A, not applicable

Supplementary Table 3. Risk of bias among the cohort studies using the Cochrane Collaboration framework

Name, year	Exposed/non-exposed from same group	Assessment exposure	Outcome of interest not present at study start	Matched for all prognostic variables or statistical adjustment	Assessment of presence/absence of prognostic factors	Assessment of outcome	Adequate follow up of cohorts	Similar co-interventions between groups
McCue et al. (2009)	+			?	?	+	+	?
Ranjan et al. (2003)	+	+	+	-	+	?	+	?
Esse et al. (2013)	+	+	+	+	+	+	+	?
Crissinger et al. (2015)	+	+	+	-	+	+	+	?
Hickey et al. (2016)	-	+	+	+	+	+	+	?

+, criteria met; -, criteria not met; ?, unclear; N/A, not applicable

Supplementary Table 4. Risk of bias among the uncontrolled before-after studies using the National Institute of Health framework

Name, year	Eligibility defined prior to enrollment	Outcomes clear, valid, reliable	Blinding of outcome assessors	Follow up of providers (80%)	Follow up of patients (80%)	Statistical analysis	Multiple outcome assessors
Cancian et al. (2013)	+	+	+	+	+	+	N/A
Matthews et al. (2007)	+	+	+	?	+	+	N/A
Braun et al. (2011)	+	+	+	+	+	+	N/A
Butler	+	+	+	?	?	+	N/A
Qian et al. (2011)	+	+	+	?	?	+	N/A
Gravelin et al. (2011)	+	+	+	+	+	+	N/A
Reingold et al. (2007)	+	+	+	?	?	+	N/A
Oujiri et al. (2011)	+	+	+	?	?	+	N/A
Warden et al. (2014)	+	+	+	?	?	+	N/A
Martinez et al. (2013)	+	+	+	?	?	+	N/A
Garin et al. (2012)	+	+	+	+	+	+	N/A
Whellan et al. (2001)	+	+	+	?	?	+	N/A

Fonarow et al. (2010)	+	+	+	?	?	+	N/A
Ghioghiarde et al. (2012)	+	+	+	?	?	+	N/A
Goff et al. (2005)	+	+	+	+	+	+	N/A
Riggio et al. (2009)	+	+	+	?	?	+	N/A
Scott et al. (2004)	+	+	+	?	?	+	N/A
Dykes et al. (2005)	+	+	+	?	?	+	N/A

+, criteria met; -, criteria not met; ?, unclear; N/A, not applicable